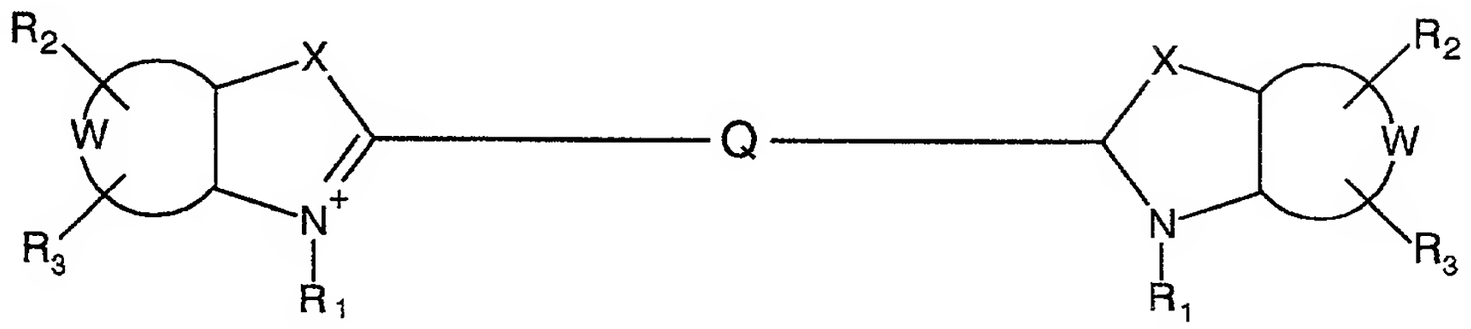
WHAT IS CLAIMED IS:

1. A symmetric cyanine of the formula:



(1)

wherein:

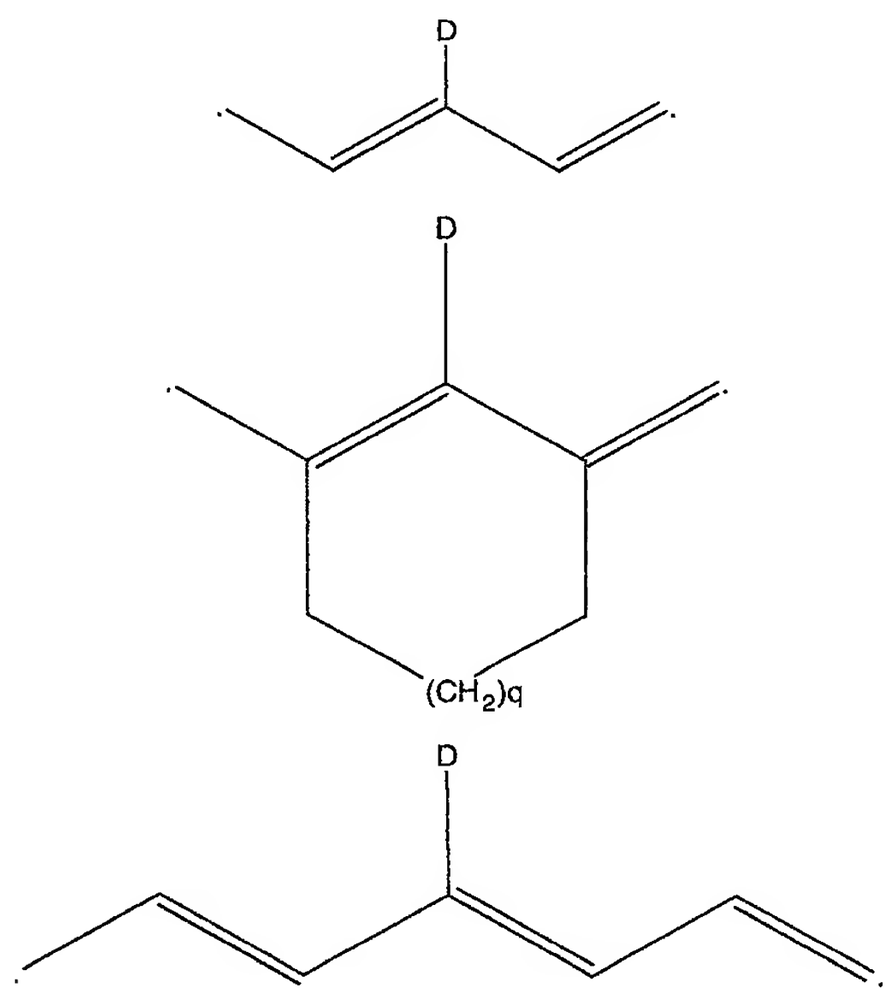
X is selected from the group consisting of O, S and $C(CH_3)_2$;

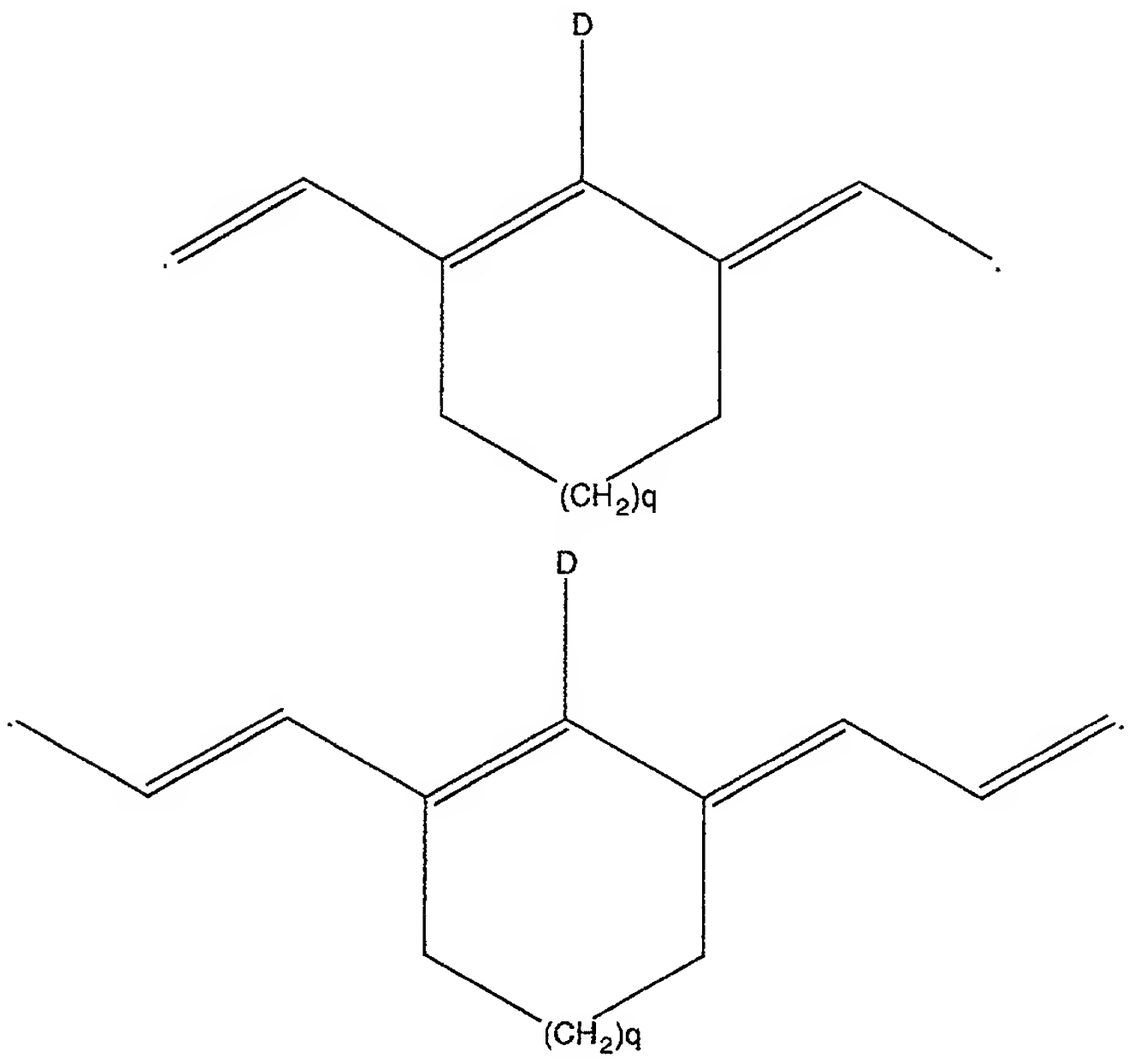
W represents non-metal atoms required to form a benzo-condensed or a naphto-condensed ring;

R_1 is selected from the group consisting of $(CH_2)_nCH_3$, $(CH_2)_nSO_3^-$ and $(CH_2)_nSO_3H$, wherein n is an integer selected from 0 to 6 when R_1 is $(CH_2)_nCH_3$, and n is an integer selected from 3 to 6 when R_1 is $(CH_2)_nSO_3^-$ or $(CH_2)_nSO_3H$;

R_2 and R_3 are independently selected from the group consisting of H, a sulphonic moiety and a sulphonate moiety;

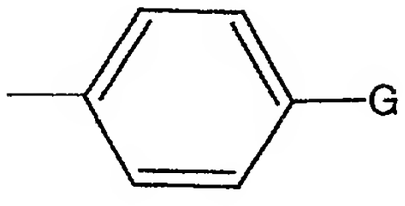
Q is selected from the group consisting of:





wherein q is 0 or 1 and D is selected from the group consisting of:

$-C\equiv C-G$;



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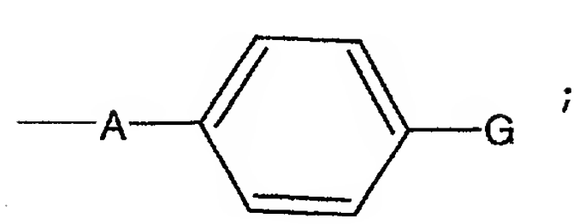

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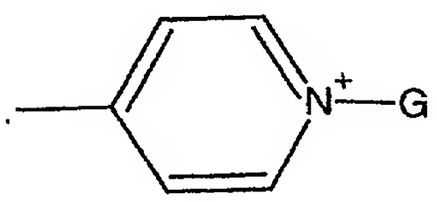


;

wherein A is O or S;

G is a nucleophile moiety selected from the group consisting of $(CH_2)_mNH_2$, $(CH_2)_mSH$, $(CH_2)_mY(CH_2)_pOH$, $(CH_2)_mY(CH_2)_pNH_2$ and $(CH_2)_mY(CH_2)_pSH$, wherein Y is selected from the group consisting of -NH-, -CONH-, -O- and -S-, m is an integer selected

from 0 to 6 and p is an integer selected from 1 to 6;
or wherein G is a moiety capable of reacting with N, O or S nucleophiles, and is selected from the group consisting of $(CH_2)_mCOOH$, $(CH_2)_m$glycidyl, $(CH_2)_m$maleimide, $(CH_2)_mCO$-NHS, $(CH_2)_mCO$-imidazole, $(CH_2)_mSO_2CH=CH_2$, $(CH_2)_mCONHNH_2$, $(CH_2)_mCHO$, $(CH_2)_mY(CH_2)_pCOOH$, $(CH_2)_mY(CH_2)_p$glycidyl, $(CH_2)_mY(CH_2)_p$maleimide, $(CH_2)_mY(CH_2)_pCO$-NHS, $(CH_2)_mY(CH_2)_pCO$-imidazole, $CH_2(CH_2)_mO$-PAM, $(CH_2)_mY(CH_2)_pSO_2CH=CH_2$, $(CH_2)_mY(CH_2)_pCONHNH_2$, $(CH_2)_mY(CH_2)_pCHO$ and $(CH_2)_mY(CH_2)_pO$-PAM, wherein Y, m and p have the meanings indicated above.

2. A symmetric cyanine according to claim 1, wherein at least one of the moieties R_1 to R_3 is, or contains a sulphonic moiety or a sulphonate moiety.

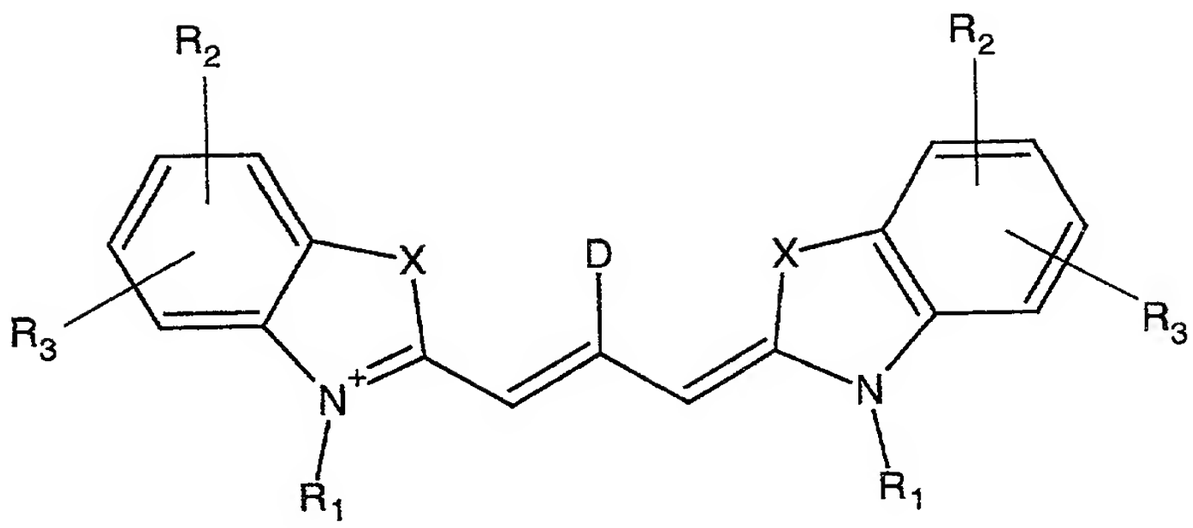
3. A symmetric cyanine according to claim 1, wherein X is $C(CH_3)_2$.

4. A symmetric cyanine according to claim 3, wherein one of the moieties R_2 and R_3 is a sulphonic moiety or a sulphonate moiety.

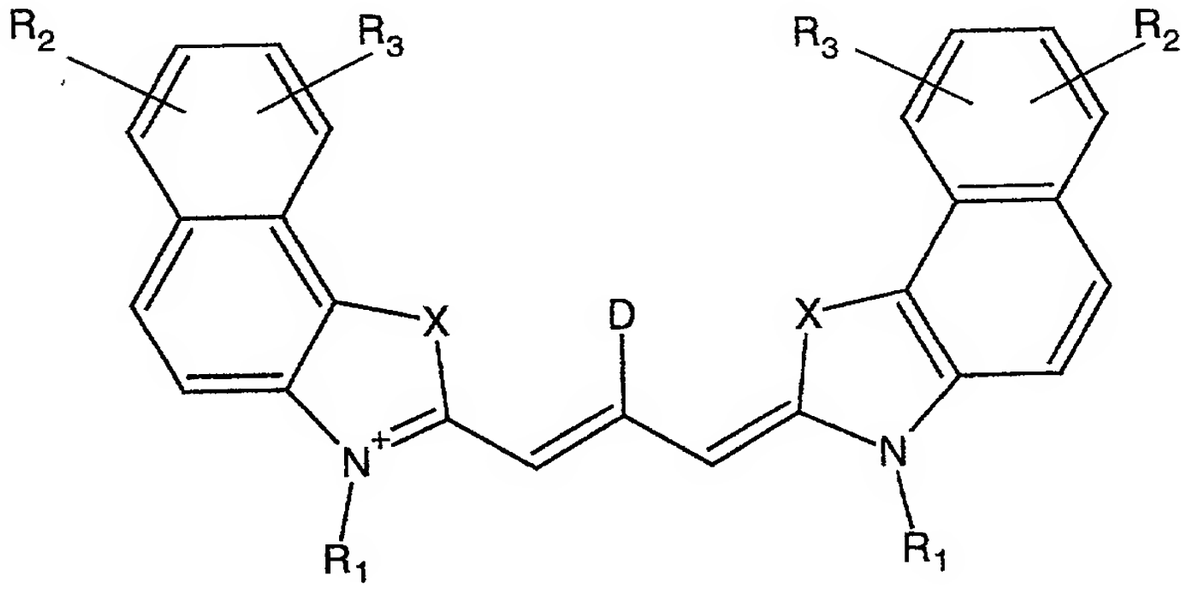
5. A symmetric cyanine according to claim 4, wherein R_1 is $(CH_2)_nSO_3^-$ or $(CH_2)_nSO_3H$.

6. A symmetric cyanine according to claim 1, wherein X is S and R_1 is $(CH_2)_nSO_3^-$ or $(CH_2)_nSO_3H$.

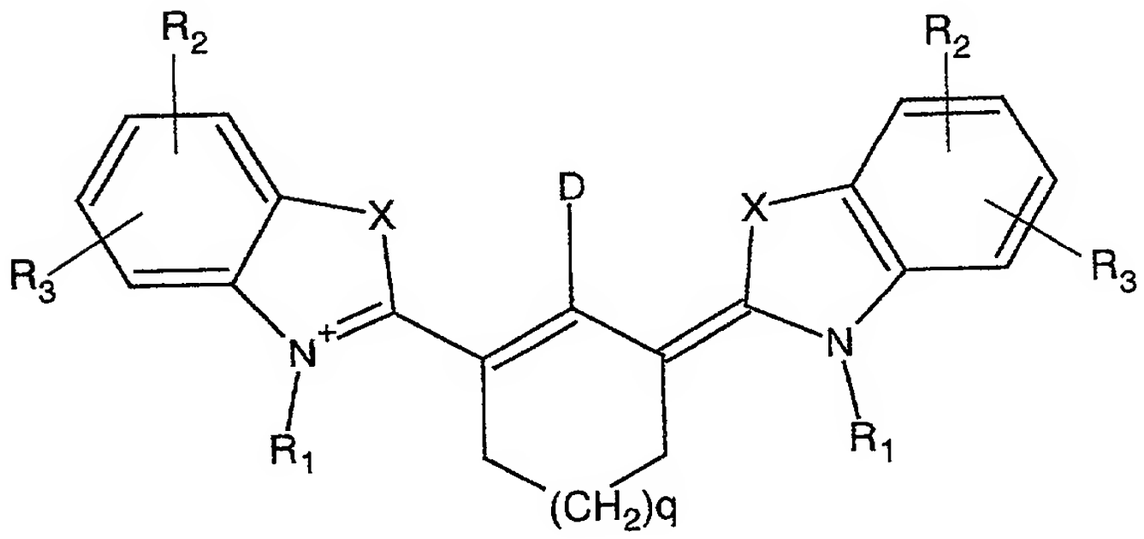
7. A symmetric cyanine according to claim 1 having any of the formulae 2a to 21:



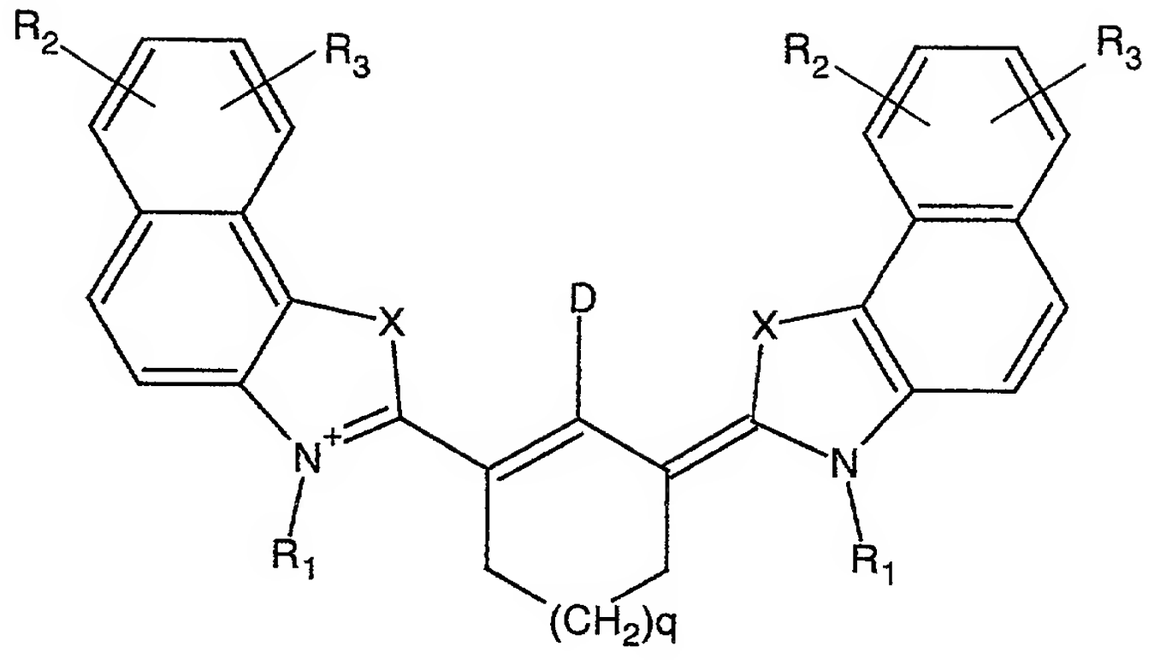
2a



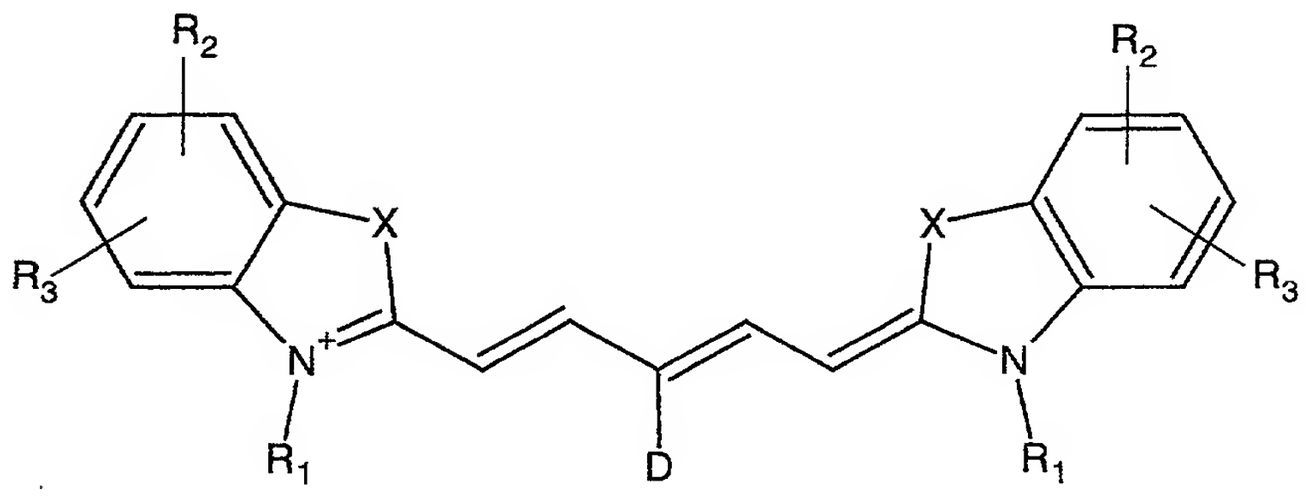
2b



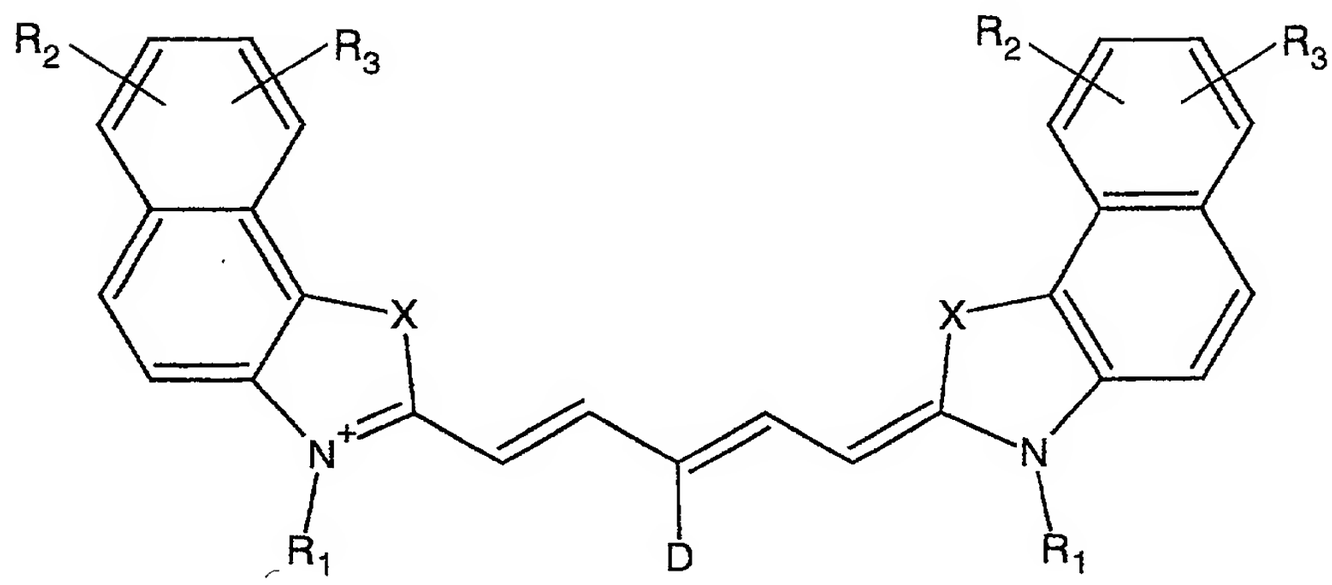
2c



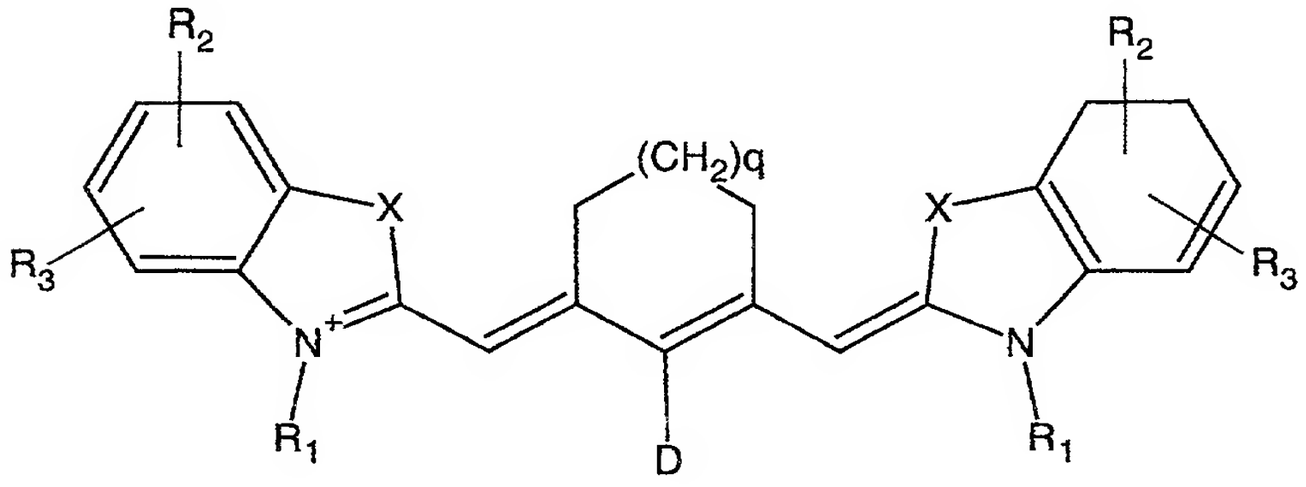
2d



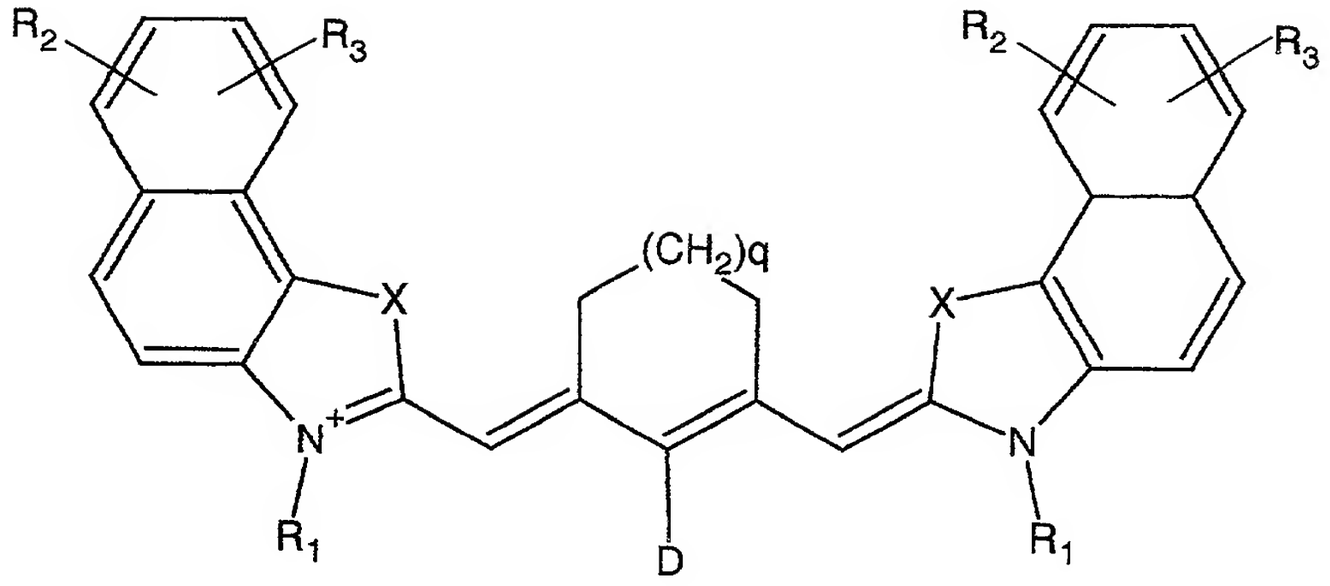
2e



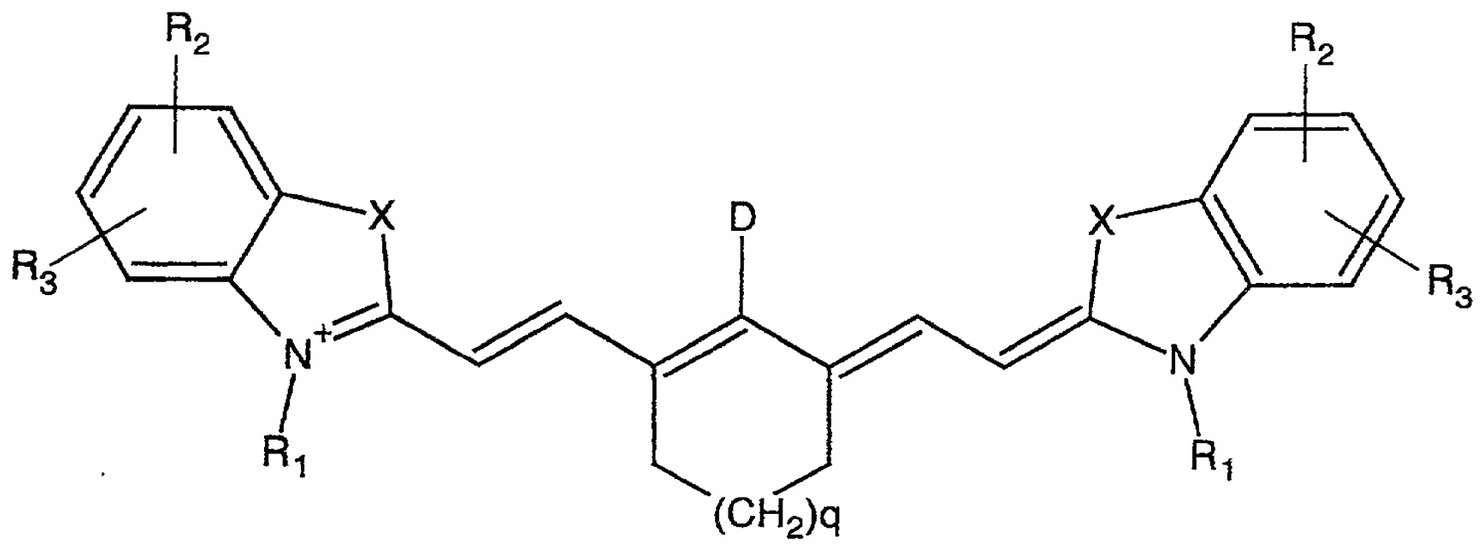
2f



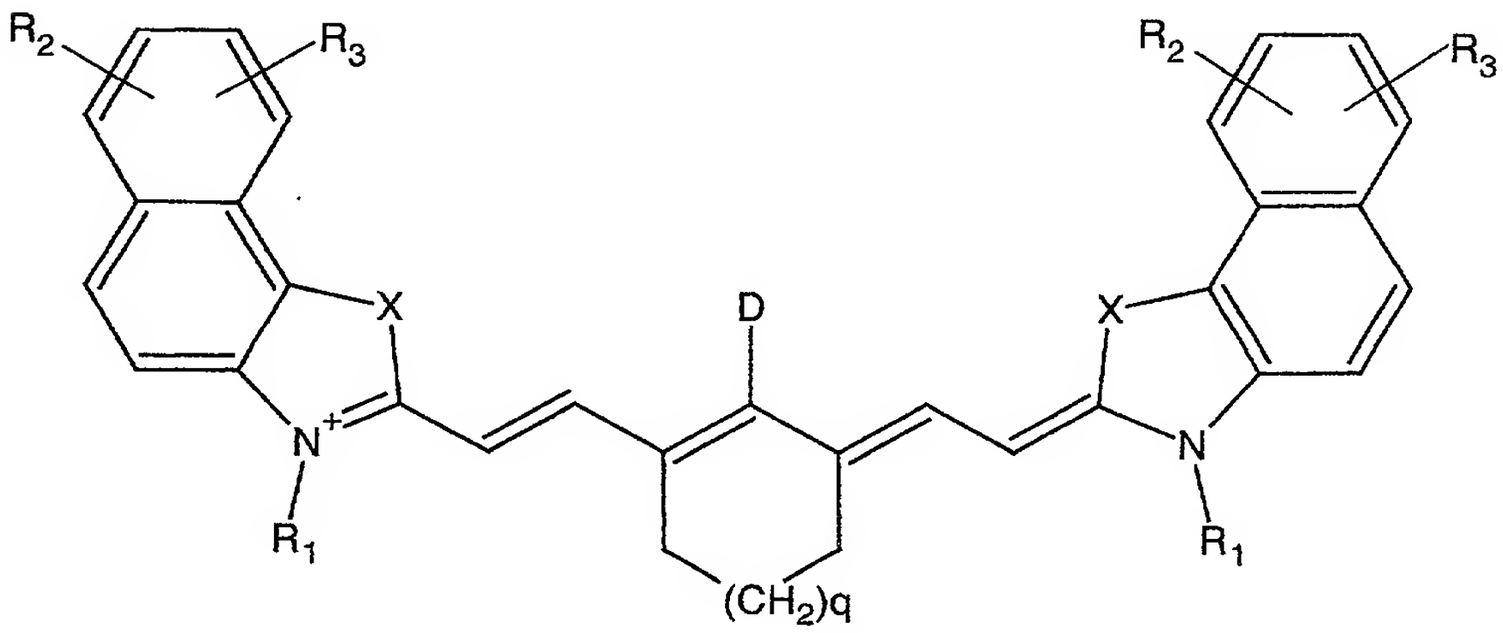
2g



2h



2i



2l

wherein R_1, R_2, R_3, X, q and D have the meanings indicated in claim 1.